Who should teach it and how to teach? — Statistics education in Japan

M.Yasuda

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Abstract:

Refereing to GAISE project in US, 2003, we empasis that the education of statistics need a experiance of case study and it differs from mathematics.

Statistics is based on mathematical foundations and further application or exploiting notions are important.

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Cobb Report GAISE Cost/Efficiency

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Statistical Education in US curriculum and evaluation GAISE project: (Guidelines for Assessment and Instruction in Statistical Education)

• (1) Contents are decressing or deleted in High school or in elementary school

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• (2) Synthetic or Overall study in elementary school are innovated

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- (2) Synthetic or Overall study in elementary school are innovated
- (3) Revise Guidance of teaching by Central Ministry of Education in Japan, JSPS(Jananese Society of Promotion for Science)

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Nagasaki University of Medicine(Prof. Y.Shibata) Medical statistics:

- (1) Data scaling, expression in figure
- (2) Definition of probability, conditional probability, Bayes theorem
- (3) Mean and variance etc of distribution
- (4) Sampling of data, statistical data, Likeyhood
- (5) Fundamental notion of Estimation theory
- (6) Hypothesis testing
- (7) Inference of mean value, ratio
- (8) Independence of test, Curve fitting, Chi square
- (9) Scattering plot, Coefficient of relation
- (10) Simple regression analysis

History: US

History: US 1957 Sputonik Shock

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History: US

History: US 1957 Sputonik Shock 1983 Achievement results — "Poor" 1985 Project by American Society of Promotion for Science 1992 Cobb Report : Curriculum revision Statistics (1) Emphasis considereing statistical thinking (2) Data or Phenomenon are important and decrease the theoretical treatment

(3) Promote an active study

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2003 GAISE

M.Yasuda Who should teach it and how to teach? — Statistics educatio

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2003 GAISE (Guidelines for Assessment and Instruction in Statistical Education) project

2003 GAISE (Guidelines for Assessment and Instruction in Statistical Education) project prek-12 group – under high school student

2003 GAISE (Guidelines for Assessment and Instruction in Statistical Education) project prek-12 group – under high school student college group – Intorductionary statistic course in college Three objects and six recommendation

* Refer Dr.Utts paper

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GAISE report2003 teaches:

• (1) Not teach a technic to solve problems, but to get an understanding of fundamental notion, idea, concept.

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GAISE report2003 teaches:

- (1) Not teach a technic to solve problems, but to get an understanding of fundamental notion, idea, concept.
- (2) Experience in success or disappointment. Try to condier a statistical problem and recognize solutions.

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GAISE report2003 teaches:

- (1) Not teach a technic to solve problems, but to get an understanding of fundamental notion, idea, concept.
- (2) Experience in success or disappointment. Try to condier a statistical problem and recognize solutions.
- (3) Not to induce a formally problem. In college education, it should be teached a fundamental notion of probability, dispersion or distribution. Success story or case of applied in mistake, error should be explaind in a text book.

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Issue for further education;

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• (a) There may be no objection but who tell me the content, how can I get these information?

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- (a) There may be no objection but who tell me the content, how can I get these information?
- (b) How should we train or nourish young teachers of statistics? There are not so many teachers in college who can have experience a case study of statistical problems. To train only math-teachers are in sufficinency.

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- (a) There may be no objection but who tell me the content, how can I get these information?
- (b) How should we train or nourish young teachers of statistics? There are not so many teachers in college who can have experience a case study of statistical problems. To train only math-teachers are in sufficinency.
- (c) Recognize a math teacher from a statistical one and the cooperation is necessary to join up a group work.